Medical Information Server on Internet

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The Medical Information Server (MIS) installed at Georgetown University Medical Center provides a long-term storage facility for multi-media medical records in support of medical researchers at the Department of Radiology. The medical records include digitized films, pictures, images, audios, and videos. The Information Server is built as an Internet server; it not only provides a centralized data repository for the researchers within the department, it also provides easy methods for exchanging data with researchers from other universities.

The Medical Information Server enables the user to store, query, update, and retrieve medical records. User interface with the Server is accomplished through any Internet browser and the JAVA language applications. A set of Graphical User Interface (GUI) menus allows the user to perform these functions. By selecting a file name from the file structure GUI, a user is able to copy a file from his/her workstation to the MIS. Along with the file, the user is able to add descriptions to the file so it can serve as the index for future query and retrieval. The files in the MIS are stored temporarily on a staging disk and permanently copied to a tape cartridge in the library system. The files in the tape library can be automatically loaded to the tape drive manufactured by StorageTek. To retrieve a file, a user can enter either the file name or the file description information. When the user enters the desired query, the MIS then responds with a list of matched file names and basic file descriptions to the user. Then the user selects the specific file(s) to be retrieved and copied from the tape library to the user workstation for display or further processing.

The MIS client software consists of a general purpose Internet browser and customized JAVA code for remote file transfer and dynamic selection menu generation. The MIS software consists of an HTTP server; Common Gateway Interface program; user and patient data security policy software; the software to store, query, and retrieve files; and the dynamic SQL generation software. A relational data base management system is used to manage the file description and the file catalog information. The Enterprise Volume Manager from StorageTek is used to manage the tape library.

The MIS provides researchers with a cost-effective, permanent, and user-friendly multi-media file archive system.

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